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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,187	08/28/2001	Larry Kim	JAM-02102/29	5984

7590 09/22/2004  
Gifford, Krass, Groh  
Suite 400  
280 N. Old Woodward Ave.  
Birmingham, MI 48009

EXAMINER
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NGUYEN, LINH V

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/941,187

Applicant(s)

KIRN, LARRY

Examiner

Linh V. Nguyen

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09/01/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/28/01 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to applicant's RCE received on 09/01/04.

Claims 1 - 6 are pending on this application.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C.(e), which papers have been place of record in the file.

### ***Drawings***

3. This application Fig. 1, Fig. 2 and Fig. 3 have been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required in response to this office action.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 - 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Fig. 1 and Fig. 2 of Applicant Admitted Prior Art (AAPA).

Regarding claim 1, Fig. 1 of AAPA discloses in a switching (103, 104, 105, 106) amplifier of the type (AAPA, Page 3 line 2) wherein one or more references

(V+,Ground) are coupled to a load (110) through gated switches (103, 104, 105, 106) controlled by a pulse-width modulated (102) input signal (101), the improvement comprising: adding a minimum pulse width of the same polarity (Fig. 2 [201] the third pulse, and [203] the first pulse disclosing a minimum pulse width having the same polarity) to a pair of the switching devices (Fig. 1 [103 - 106]), one on either side of the load (Fig. 1 [110], also See AAPA page 3 lines 8 - 12), to null the common-mode output presented to the load (this is an improvement only, which is achieving by adding the minimum pulse width of the same polarity to the pair of switch on either side of the load, hence Fig. 1 and Fig. 2 as discussed above disclose adding the minimum pulse width of the same polarity to the pair of switch on either side of the load, therefore to null the common-mode output presented to the load is achieved by Fig. 1 and 2).

Regarding claim 2, wherein the switches are arranged as differential pair (See Fig. 1 [103, 104, 105, 106] discloses differential pair for signals Fig. 2 [201, 202, 203, 204]) on either side of the load (Fig. 1 [110]).

Regarding claim 3, wherein minimum pulse width is added (Fig. 2 [201, 202], [203, 204] during the pulse-width modulation (Fig. 1 [102]) of the input signal (Fig. 1 [102])).

Regarding claim 4, Fig. 1 of AAPA discloses disclose an enhanced performance switching (103 - 106) amplifier (page 3 line 2) coupling an input signal (101) to a load (110), comprising: at least one electrically controlled switch (103 - 106) coupled to each side of the load powered by a common reference (V+, Ground);

and a waveform generator (102) operative to perform the following functions: control (111 - 114) the switches (103 - 106) in accordance with the input signal (101), and adding a minimum pulse width (Fig. 2 [201, 201 ] the third pulse, [203, 204] the first pulse) of the same polarity (the third pulse of [201], and the first pulse of [203] having the same polarity) to both electrically controlled switches (See AAPA page 3 lines 8-92) so as to null common-mode output presented to the load (this is an improvement only, which is achieving by adding the minimum pulse width of the same polarity to the electrical controlled switches, hence Fig. 1 and Fig. 2 as discussed above discloses adding the minimum pulse width of the same polarity to the electrical controlled switches, therefore to null the common-mode output presented to the load is achieved by Fig. 1 and 2)).

Regarding claim 5, wherein the switches are arranged as differential pair (See Fig. 1 [103, 104, 105, 106] discloses differential pair for signals Fig. 2 [201, 202, 203, 204]) on either side of the load (Fig. 1 [110]).

Regarding claim 6, wherein the minimum pulse width is added by the pulse-width-modulator (Fig. 1 [102]).

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 - 5:00 Monday-Friday.

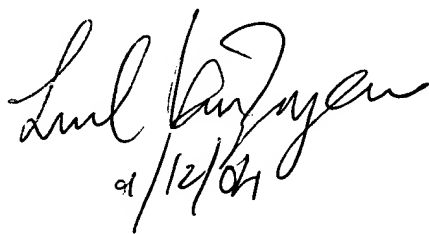
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (571) 272-1812. The fax phone numbers for the organization where this application or proceeding is assigned are (703-872-9306) for regular communications and (703-872-9306) for After Final communications.

09/12/004

Linh Van Nguyen

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A handwritten signature in black ink, appearing to read "Linh Van Nguyen", with the date "09/12/01" written below it.